Case 5:11-cv-02509-LHK Document 454-3 Filed 07/12/13 Page 1 of 21

1 2 3 4 5 6 7 8 9 10 11 12 13 14	Richard M. Heimann (State Bar No. 63607) Kelly M. Dermody (State Bar No. 171716) Eric B. Fastiff (State Bar No. 182260) Brendan P. Glackin (State Bar No. 199643) Dean M. Harvey (State Bar No. 250298) Anne B. Shaver (State Bar No. 255928) Lisa J. Cisneros (State Bar No. 251473) LIEFF CABRASER HEIMANN & BERNST 275 Battery Street, 29th Floor San Francisco, California 94111-3339 Telephone: (415) 956-1000 Facsimile: (415) 956-1008 Joseph R. Saveri (State Bar No. 130064) Lisa J. Leebove (State Bar No. 186705) James G. Dallal (State Bar No. 277826) JOSEPH SAVERI LAW FIRM 505 Montgomery Street, Suite 625 San Francisco, California 94111 Telephone: (415) 500-6800 Facsimile: (415) 395-9940 Co-Lead Class Counsel [Additional counsel listed on signature page]	ES DISTRICT COURT
15		
16	NORTHERN DISTRICT OF CALIFORNIA SAN JOSE DIVISION	
17	57 11 () 0	
18 19 20	IN RE: HIGH-TECH EMPLOYEE ANTITRUST LITIGATION THIS DOCUMENT RELATES TO:	Master Docket No. 11-CV-2509-LHK PLAINTIFFS' REPLY IN SUPPORT OF SUPPLEMENTAL CLASS CERTIFICATION MOTION
21 22	ALL ACTIONS	Date: August 8, 2013 Time: 1:30 pm
23		Courtroom: 8, 4th Floor Judge: Honorable Lucy H. Koh
24		,
25		
26		
27		
28		
		DI AINTIEES' DEDI VISO SUDDI EMENTAL CLASS

Case 5:11-cv-02509-LHK Document 454-3 Filed 07/12/13 Page 2 of 21

1		TABLE OF CONTENTS	
2		Pag	
3		FION	
4	I.	Dr. Leamer Has Provided The Confirmation Requested By The Court	
5		A. Defendants' Attack on Averaging Misreads Relevant Caselaw	5
67		B. It is Irrelevant that Defendants Do Not Pay Employees in "Lockstep"	7
8		C. Dr. Leamer's Regressions Do Not Suffer from Any "Fallacies"	9
9	II.	Defendants Concede Dr. Hallock's Empirical Study and Dr. Shaw Ignores the Evidence and the Data That Disprove Her Unsupported Assumptions	1
10 11	III.	The Damages Regression Continues to be a Plausible Method of Proving Damages	4
12	CONCLUSIO	ON1	
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			

1	TABLE OF AUTHORITIES
2	Page
3	Cases
4	City of Tuscaloosa v. Harcros Chems., 158 F.3d 548 (11th Cir. 1998)
5	Comcast Corp. v. Behrend,
6	133 S.Ct. 1426 (2013)
7	200 F.R.D. 297 (E.D. Mich. 2001)
8	In re Flat Glass Antitrust Litig., 191 F.R.D. 472 (W.D. Pa. 1999)
9	In re Graphics Processing Units Antitrust Litig., 253 F.R.D. 478 (N.D. Cal. 2008)
10 11	In re TFT-LCD Antitrust Litig., 267 F.R.D. 291 (N.D. Cal. 2010)
12	In re Urethane Antitrust Litig., No. 04-1616, 2013 U.S. Dist. LEXIS 69784 (D. Kan. May 15, 2013)
13 14	J. Truett Payne Co. v. Chrysler Motors Corp., 451 U.S. 557 (1981)
15	Johnson Elec. N. Am. Inc. v. Mabuchi Motor Am. Corp., 103 F. Supp. 2d 268 (S.D.N.Y. 2000)
16	Kohen v. Pac. Inv. Mgmt. Co., 571 F.3d 672 (7th Cir. 2009)
17	Messner v. Northshore Univ. Health Systems, 669 F.3d 802 (7th Cir. 2012)7
18	Reed v. Advocate Health Care, 268 F.R.D. 573 (N.D. Ill. 2009)
19	Treatises
20	Newberg on Class Action (3rd Ed. 1992), § 10.05
21	Other Authorities
22	Schaffner, "Specious Learning About Reward and Punishment",
23	J. of Personality & Social Psych. (1985)
24	
25	
26	
27	
28	
	DI AINTEEC? DEDI VICO CUIDI EMENTAL CI ACC

1	Table of Abbreviations ¹
2	Order Granting in Part, Denying in Part Motion for Class Certification [Dkt.382] Order
3	Plaintiffs' Motion for Class Certification [Dkt. 187]Mot
4	Plaintiffs' Reply In Support of Class Certification [Dkt. 247]
5	Plaintiffs' Supplemental Motion and Brief in Support of Class Certification [Dkt. 418]
67	Defendants' Opposition to Plaintiffs' Supplemental Motion for Class Certification [Dkt. 439]
8	Expert Report of Edward E. Leamer, Ph.D. [Dkt. 190]Leamer I¶
9	Reply Expert Report of Edward E. Leamer, Ph.D. [Dkt. 246]Leamer II ¶
10	Supplemental Expert Report of Edward E. Leamer, Ph.D.[Dkt.418-4] Leamer III ¶
11	Supplemental Reply Expert Report of Edward E. Leamer, Ph.D. (filed herewith)Leamer IV ¶
12	Expert Report of Professor Kevin M. Murphy [Dkt. 212]
13 14	Supplemental Expert Report of Professor Kevin M. Murphy [Dkt. 440]Murphy II ¶
15	Expert Witness Report of Kevin F. Hallock [Dkt. 418-3]
16	Expert Report of Professor Kathryn Shaw [Dkt. 442]Shaw ¶
17	Deposition of William Campbell (February 5, 2013)
18	Deposition of Ed Catmull (January 24, 2013)
19	Deposition of Tony Fadell (March 20, 2013)
20	Deposition of Arnnon Geshuri (August 17, 2012)Geshuri
21	Deposition of Lori McAdams (August 2, 2012)
22	Deposition of Danny McKell, (March 20, 2013)
23	Deposition of Donna Morris (August 21, 2012)
24	Deposition of Rosemary Arriada-Keiper (March 28, 2013)Arriada-Keiper
25	Deposition of Mason Stubblefield (March 29, 2013)Stubblefield
26	
27 28	¹ The deposition of witnesses who provided a report and a deposition are abbreviated as "[Last Name] Dep."; the deposition of witnesses who provided a deposition but not a report are abbreviated as "[Last Name]."

PLAINTIFFS' REPLY ISO SUPPLEMENTAL CLASS CERTIFICATION MOTION CASE NO. 11-CV-2509 LHK

Case 5:11-cv-02509-LHK Document 454-3 Filed 07/12/13 Page 5 of 21

1	Deposition of Frank Wagner (March 7, 2013)	Wagner
2	Deposition of Kevin Hallock (June 7, 2013)	Hallock Dep
3	Deposition of Edward Leamer (June 11, 2013)	Leamer Dep
4 5	Deposition of Kevin Murphy (Vol. I., pp. 1-385, December 3, 2012 and Vol. II, pp. 386-568, July 5, 2013)	Murphy Dep
6	Deposition of Kathryn Shaw (July 3rd, 2013)	Shaw Dep
7	Declaration of Michele Maupin (Exhibit 22 to the Declaration of Christina Brown [Dkt. 215])	Morris Decl
8	Declaration of Donna Morris (Exhibit 14 to the Declaration of Christina Brown [Dkt. 215])	Morris Decl
10	Declaration of Frank Wagner (Exhibit 21 to the Declaration of Christina Brown [Dkt. 215])	Wagner Decl
11 12	Declaration of Danny McKell (Exhibit 17 to the Declaration of Christina Brown [Dkt. 215])	McKell Decl
13	Declaration of Lori McAdams (Exhibit 23 to the Declaration of Christina Brown [Dkt. 215])	. McAdams Decl
14	Declaration of Sheryl Sandberg (filed herewith)	Sandberg Decl
15 16	Declaration of Dean M. Harvey In Support of Plaintiffs' Reply In Support of Class Certification [Dkt. No. 248]	Harvey Decl
17	Declaration of Lisa J. Cisneros In Support of Plaintiffs' Supplemental Motion for Class Certification [Dkt. No. 418-2]	Cisneros Decl
18 19	Declaration of Anne B. Shaver In Support of Plaintiffs' Reply In Support of Supplemental Motion for Class Certification (filed herewith)	Shaver Decl
20		
21		
22		
23		
24		
25		
26		
27		
28		

1

INTRODUCTION This case is not about one missed cold-call, one missed raise, or whether a single pay raise 2 to a single employee would require the pay of thousands of other employees to be increased by 3 exactly the same amount. Rather, this case is about anti-solicitation agreements to suppress entire 4 channels of competition that Defendants themselves viewed as most threatening to their 5 workforces and pay structures. The record is replete with express admissions by Defendants' 6 senior executives that the agreements were intended to and did have the effect of suppressing pay 7 of the Technical Class. Unable to address this testimony head-on, Defendants curiously dismiss it 8 9 as "mostly old and off point." Opp. 19. They also now change course and admit as "unremarkable" Dr. Hallock's expert analysis that each Defendant 10 11 premise they vehemently challenged before the completion of scores of company witness 12 depositions and production of tens of thousands of company documents over the last six months. 13 This time around, Defendants resuscitate a number of their "no impact" arguments.² They 14 assert they do not pay their employees identical amounts; and that 15 16 3. They ignore that the Court has already accepted as common evidence of generalized harm Dr. 17 Leamer's economic proof; the documents and testimony of Defendants' managers; and Dr. 18 19 Leamer's statistical analyses and damages regression. Rather than meaningfully address or dispute it, Defendants try to distract the Court from the only real question at issue: whether 20 Plaintiffs have put forward a plausible method, based on common evidence, of proving that 21 Defendants' illegal agreements harmed all or nearly all members of the proposed Technical Class. 22 Order 10, 15-17. The answer is manifestly yes. 23 Part One below addresses Defendants' unfounded attacks on Dr. Leamer's analyses. 24 26 27

25

28

, Opp. 3, a

Opp.

² This reply only seeks certification of a litigation class against Defendants Adobe, Apple, Google, Intel, and Intuit. Plaintiffs have reached a settlement with Lucasfilm and Pixar to settle all individual and class claims alleged in the Consolidated Amended Complaint on behalf of the proposed Technical Class identified in Plaintiffs' Supp. Mot., Dkt. 418, and Appendix B to Leamer I. Plaintiffs anticipate presenting the proposed settlement for the Court's consideration in the near future.

Case 5:11-cv-02509-LHK Document 454-3 Filed 07/12/13 Page 7 of 21

1	Plaintiffs have shown Defendants' misconduct did in fact harm all or nearly all Class members.
2	Dr. Leamer has bolstered his conclusion that, as a result of internal equity and information
3	sharing, suppression of compensation to some employees affected all or nearly all others,
4	particularly the Technical Class. In addition to his prior conduct regressions and his common
5	factor analysis, Dr. Leamer has performed a correlation analysis analyzing compensation levels
6	and a correlation of compensation changes. With respect to the correlation analysis,
7	
8	Dr. Leamer also has performed an additional multiple
9	regression analysis controlling for external common influences which shows that gains in
10	compensation are shared among members of the Technical Class at each firm. The gains are
11	shared both contemporaneously and over time. In other words, were there cold calls or other
12	events raising individual employees' compensation, such compensation gains were shared by all
13	or nearly all Class members.
14	Defendants argue that variation in their employees' pay precludes class-wide proof of
15	impact and is "flatly inconsistent" with any impact at all. Opp. 9. Their own expert
16	Murphy Dep. 438:13-18. Dr. Murphy also admitted that
17	
18	Dr. Leamer. Id. 553:18-20
19	The argument that Dr. Leamer's
20	analysis suffers from an "endogeneity" problem is a hypothetical attack untethered from the
21	record evidence. Dr. Murphy's construction of alternative regressions to model the weather or
22	nationwide employment data is both flawed and pointless. Dr. Leamer provides reliable statistical
23	confirmation that Defendants maintained formal compensation structures across all titles in the
24	Technical Class, and demonstrates that the Class does not "swee[p] within it persons who could
25	not have been injured." Order 45 (quoting Kohen v. Pac. Inv. Mgmt. Co., 571 F.3d 672, 677 (7th
26	Cir. 2009)).
27	Part Two rebuts Defendants' attack on the "unremarkable" conclusions of Dr. Hallock.
28	Dr. Hallock presents a reliable study demonstrating that Defendants maintained formal

Case 5:11-cv-02509-LHK Document 454-3 Filed 07/12/13 Page 8 of 21

1	compensation structures and enforced internal equity across their employees, creating avenues of
2	propagation through which pay suppression impacted all or nearly all Class members. Dr.
3	Murphy
4	. Murphy Dep. 442:24-443:9, 443:11-15.
5	Like Dr. Murphy, Dr. Shaw
6	
7	
8	
9	Dr. Leamer also looks at the data to investigate two of Dr. Shaw's
10	unsupported assertions:
11	
12	
13	
14	
15	Leamer
16	IV ¶¶ 31, 67.
17	Part Three puts to rest Defendants' passing attempt to revive their attack, via <i>Comcast</i> , on
18	Dr. Leamer's damages regression. Defendants grossly mis-state its holding.
19	Defendants' experts make some truly remarkable assertions in their attempt to defeat class
20	certification. Dr. Shaw says
21	. Dr. Murphy says
22	. Murphy
23	Dep. 508:11-15
24	
25). This simply underscores that the Court should accept the unremarkable
26	conclusions of Drs. Leamer and Hallock that Defendants created and enforced formal and
27	structured pay systems that were suppressed by Defendants' misconduct, impacting all or nearly
28	all Class members. The Court should certify the Technical Class.

1

2

ARGUMENT

Dr. Leamer Has Provided The Confirmation Requested By The Court I.

3	Dr. Leamer's prior testimony provides economic evidence demonstrating how the anti-
4	solicitation agreements impacted the class, Order 17:6-21:3; copious documentary evidence that
5	the Defendants sought to maintain internal pay equity, such that the impact of cold-calling would
6	have spread beyond the recipients of the calls, id. 21:5-29:10; and a conduct regression showing
7	widespread and generalized harm to the class, id. 33:12-34:18. The Court found that this evidence
8	could be used to prove class-wide antitrust impact. <i>Id.</i> 20:20-22, 27:18-20, 33:6-10, 35:1-6.
9	However, the Court expressed concern that the class might be overbroad, because Dr. Leamer's
10	empirical analysis did not sufficiently show that the effect would have been shared by every or
11	nearly every member of the all-salaried class. Dr. Leamer's common factors analysis showed
12	each employee's compensation to be primarily driven by her job title—a fact beyond dispute at
13	this point. Murphy Dep. 457:4-6
14). The Court however expressed concern that it did not show movement of wages
15	together over time. Order 36:3-7. Dr. Leamer's co-movement charts did show movement of job
16	title compensation over time, but did not do so comprehensively for each firm. <i>Id.</i> 37:1-21. The
17	Court also expressed concern that the co-movement of average pay by job title could be driven by
18	outside influences rather than by an internal pay structure. <i>Id.</i> 37:22-38:3.
19	Dr. Leamer answered these concerns in his supplemental report. Dr. Leamer performed a
20	correlation analysis—the quantitative equivalent of the co-movement charts—that included all
21	members of the Technical Class at every Defendant. He performed a title-by-title correlation
22	analysis of Class Period employee years. Leamer III ¶ 4. He performed a "decile"
23	correlation analysis applying to of Class Period employee-years. <i>Id.</i> ¶ 44. He analyzed both
24	correlation of compensation levels and correlation of compensation changes. <i>Id.</i> \P 23. In every
25	case,
26	. Each of these approaches leads to
27	the same conclusion. Dr. Leamer also addressed the possibility that this co-movement might be
28	merely consistent with external common influences, rather than showing the existence of an

1	internal pay structure. Specifically, he used multiple regression analysis to assess whether gains
2	for a firm's Technical Class workers tend to be shared with individual job titles and also in a
3	subsequent year. He included competing variables to reflect external common factors such as the
4	firm's overall success or strength of the tech job market. Dr. Leamer's regressions demonstrate
5	
6	. Leamer III ¶¶ 8, 24-28, 34-42; Supp. Mot. 22-25.
7	A. <u>Defendants' Attack on Averaging Misreads Relevant Caselaw</u>
8	Defendants assert that Dr. Leamer may not draw conclusions by analyzing averages of
9	aggregate data, even if those averages are computed separately for each job title, for each year, at
10	each Defendant. This is incorrect. The Ninth Circuit has held "it is a generally accepted principle
11	that aggregated statistical data may be used where it is more probative than subdivided data."
12	Paige v. California, 291 F.3d 1141, 1148 (9th Cir. 2002) (citations omitted). Such techniques are
13	standard statistical tools. To answer the question of whether a relationship exists among job titles
14	the data must, by definition, be aggregated to that level. Leamer III ¶ 20; Leamer IV ¶¶ 4, 30. Dr.
15	Murphy
16	Murphy Dep. 553:18-20
17	
18	
19	
20	
21	
22	
23	
24	
25	
26	
27	Defendants rely principally on In re Graphics Processing Units Antitrust Litig., 253
28	F.R.D. 478 (N.D. Cal. 2008) ("GPUs") for their argument that Dr. Leamer engaged in prohibited

1 averaging. Opp. 1, 2, 6, 7, 13. But *GPUs* begins its analysis with an admonition: This order agrees that such methods, where plausibly reliable, 2 should be allowed as a means of common proof. To rule otherwise would allow antitrust violators a free pass in many industries. 3 4 253 F.R.D. at 491. In GPUs, unlike here, the proposed class included a variety of purchasers who 5 transacted in entirely different distribution channels: the same proposed class included consumers 6 who purchased finished products online; Original Equipment Manufacturers, such as Dell, who 7 bought parts wholesale; retailers, such as Best Buy; and other types of manufacturers, who bought 8 chips and manufactured their own finished products. *Id.* 480. The Court's primary concern was 9 whether the plaintiffs, all of whom only purchased finished products online from one of the 10 defendants, should be permitted to represent a class of large institutional purchasers with average 11 purchases of \$19.2 million each. Id. Purchasers who resembled the plaintiffs—individual 12 consumers—totaled only 0.3% of the total commerce swept into the proposed class. *Id.* 480-81. 13 Hence the Court found that plaintiffs were inadequate and atypical of the class they sought to 14 represent, issues that are uncontested here. *Id.* 489-490. Plaintiffs' expert in *GPUs*, Dr. Teece, 15 averaged across entire categories of products, and entire categories of purchasers, without 16 addressing the substantial differences between consumer purchasers and massive institutional 17 purchasers who were included in the proposed class. *Id.* 494-496. Most significantly, Dr. Teece's 18 regression excluded the consumer purchasers altogether. This "failure to include individual 19 consumers in the same model as the wholesale purchasers indicate[d] that proof [was] not 20 common to the class " Id. 496. Nonetheless, despite these deficiencies, the court certified a 21 class of 31,667 consumer purchasers who were typical of the named plaintiffs. *Id.* 497-498; 22 compare Opp. 6 ("In GPU, Judge Alsup denied certification ..."). See also In re TFT-LCD 23 Antitrust Litig., 267 F.R.D. 291, 313 (N.D. Cal. 2010) (distinguishing GPUs). 24 Defendants also rely on *Reed v. Advocate Health Care*, 268 F.R.D. 573 (N.D. Ill. 2009), 25 but continue to ignore the two cases from the Circuit Court of Appeals that oversees the Northern 26 District of Illinois: Messner v. Northshore Univ. Health Systems, 669 F.3d 802, 818 (7th Cir. 27 2012) and Kohen, 571 F.3d at 677. First, Reed expressly rejects Defendants' view that compensation must be analyzed at the individual level. *Id.* 590 ("we reject defendants' argument 28

1	that each nurse defines her own individual market—as plaintiffs point out, the implication of this
2	argument is that no group of employers could ever suppress these nurses' wages, which defies
3	common sense."). Second, as Plaintiffs explained earlier, <i>Reed</i> is inapposite because the expert
4	there could only explain "between 48% and 63%" of the variance in wages across class members.
5	268 F.R.D. at 592. Further, for registry nurses (one fifth of the proposed class), the expert could
6	only account for 5-30% of the variation, and with respect to that subgroup admitted that a
7	"different approach must be used" for them because their pay took "little or no account of age,
8	tenure or unit of care assignment," but then failed to provide such an approach. <i>Id.</i> 593. Instead,
9	he calculated a single average suppression for all nurses in the class. <i>Id.</i> 590. In contrast, in Dr.
10	Leamer's analysis "the majority of the R-squared statistics are
11	
12	Leamer I ¶ 129 (emphasis added). Drs. Leamer
13	and Hallock have also conducted numerous additional analyses confirming pay structures and
14	common impact, based not on any single average for the entire Technical Class, but on wages
15	computed separately for each job title, for each year, at each Defendant.
16	B. <u>It is Irrelevant that Defendants Do Not Pay Employees in "Lockstep"</u>
17	Defendants next claim they "substantially differentiate individual employee compensation
18	within and across job titles, and compensation was not locked into such a tight grid that any
19	movement in one part necessarily affected the rest." Opp. 10. Pointing to variations from year to
20	year in the pay of individual employees, they say that because "managers had the flexibility to
21	differentiate" the impact would have been limited to those employees targeted by cold calls:
22	"[t]here would be no ripple effect." Opp. 11.
23	This is the same "no impact" argument Defendants and Dr. Murphy unsuccessfully made
24	before, down to virtually the same charts. Compare Murphy I ¶ 44
25	with Murphy II ¶ 24
26	
27	; compare Murphy I, Ex. 18A/B with Murphy II, Exs. 7 and 8.
28	This failed argument holds even less merit now because Dr. Murphy no longer relies on the only

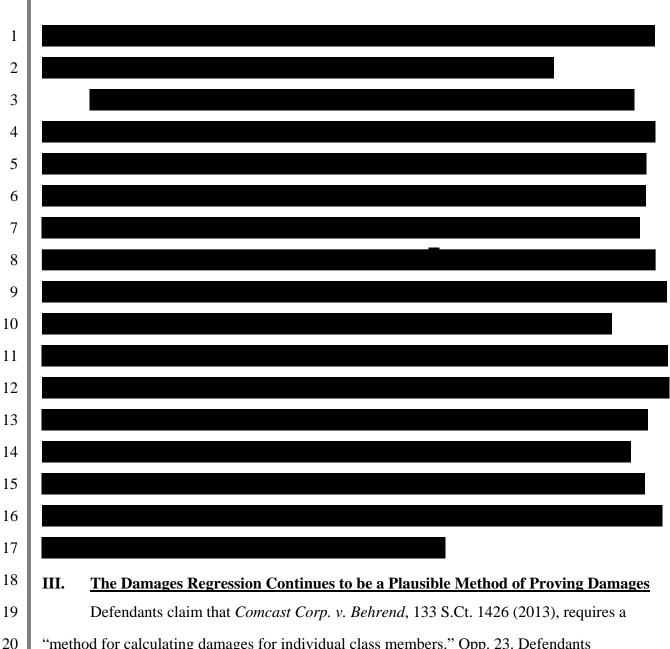
Case 5:11-cv-02509-LHK Document 454-3 Filed 07/12/13 Page 13 of 21

1	evidence he ever had, Defendants' self-serving employee declarations, which have since been
2	disproved by contrary testimony. ³ Unable to cite to any evidence in the record, Dr. Murphy falls
3	back on
4	
5	Murphy Dep. 444:17-22. However, Defendants' own documents,
6	and basic compensation textbooks, show firms would have to do exactly that in order to maintain
7	internal equity. Order 32-33 ("The Court is more persuaded by the internal, contemporaneous
8	documents created by Defendants before and during the anti-solicitation agreements").
9	There is nothing illogical, unreasonable, or "flatly inconsistent," Opp. 9:10, with Dr.
10	Leamer's finding that the Defendants simultaneously differentiated pay and maintained
11	compensation structures that commonly restrained that differentiation. Dr. Murphy
12	
13	Murphy Dep. 175:11-15; see also id. 259:20-260:1. In 2013:
14	
15	
16	
17	Murphy Dep. 438:13-18. Plaintiffs never argued that the impact of the agreements would have
18	been "lockstep"—that a \$5 raise to one employee would have required a simultaneous \$5 raise
19	across the firm. Rather, as the record proves, by shielding their employees from waves of
20	recruiting, ⁴ Defendants not only avoided individual raises, they also avoided having to make
21	across-the-board preemptive increases to compensation, such as Google did in response to
22	recruiting by Facebook. Mot. 10; Hallock ¶¶ 205, 213-214; Leamer IV ¶¶ 18-25; Sandberg Decl.
23	3
24	
25	
26	
27	
28	
	d .

1 For example, in 2005, 2 3 Reply 19 (citing Harvey Decl., Ex. 17). 4 In fact, as Dr. Leamer explains, individual compensation levels is the wrong place to look 5 for evidence of a structure and common impact, because the "inherent noise in the individual 6 level data tends to drown out the signal of the internal pay structure we are trying to detect." 7 Leamer IV ¶ 32. Indeed, if one followed Dr. Murphy's approach and only studied individuals, 8 one would not even see Google's "big bang"—the signal is completely lost in the noise of 9 individual pay variations. Leamer IV at ¶ 32-35, Fig. 1. This shows the true purpose of the 10 "individual"-level approach: to mask the structure, not to find it. 11 C. Dr. Leamer's Regressions Do Not Suffer from Any "Fallacies" 12 Neither Defendants nor Dr. Murphy make any criticisms of Dr. Leamer's methodology or 13 implementation. They raise no serious *Daubert* challenge. See Opp. 15. They do not identify a 14 single omitted variable; they do not offer a competing regression showing a lack of sharing.⁵ 15 Instead, Defendants and Dr. Murphy resort to a series of baseless attacks. First, they claim the 16 regressions suffer from an "endogeneity" problem because they omit substantial "unmeasured common factors." Murphy II at 17; see Opp. 13. But Dr. Murphy does not identify a single 17 18 omitted variable, or show how adding one would change the results. His "Technical Appendix" is 19 only a 20 Murphy Dep. 480:14-16. Dr. Murphy only 21 identified two possible relevant factors, "firm level success" and "changes in the general 22 economy", but admitted at deposition that 23 24 25 26 ⁵ The absence of these standard tactics is telling. See Conan Doyle, Sir Arthur I., "Silver Blaze," 27 Memoirs of Sherlock Holmes (1894) ("The dog did nothing in the night-time." 'That was the curious incident,' remarked Sherlock Holmes."). 28

1	. Compare Murphy II at 29, "Technical
2	Appendix" ("Compensation in each job is determined by two types of factors: (1) common
3	factors (firm-level success, changes in the general economy, etc.)"). See Leamer IV ¶¶ 61-62.
4	Dr. Murphy's "reflection" and "reversion to the mean" critiques—relegated to a footnote
5	in Defendants' brief—are no more sound. Leamer IV ¶¶ 36-49. Dr. Murphy's own authority,
6	Professor Manski, explains that a "reflection" problem can be solved by studying lagged or
7	sequenced effects, just as Dr. Leamer has done here. See Leamer IV ¶ 42. Dr. Murphy
8	
9	
10	Dr. Murphy's "reversion to the mean" critique depends on the assumption that employee pay is
11	substantially random—a bridge beyond even Defendants' contention that it is a matter of
12	manager discretion. ⁶ Dr. Leamer correctly characterizes this assumption of random compensation
13	as "implausible": "Defendants do not set annual title compensation the way that Mother Nature
14	chooses Chicago weather, day-by-day. Compensation levels in the Technical Class are all
15	determined thoughtfully by management, not by random devices." Leamer IV ¶¶ 44-48.
16	Last, Dr. Murphy creates his own regressions, but uses different data that is irrelevant
17	here. Rather than identifying a deficiency in Dr. Leamer's model, he purports to get similar
18	outcomes using weather data and generic nationwide survey data—supposedly proving his
19	"reflection" and "reversion" problems. Opp. 15, n. 5. Dr. Murphy's "weather" regression
20	compares Chicago and Milwaukee—but one need not be a meteorologist to expect to find a
21	relationship between the weather in two cities located fewer than 100 miles apart. Leamer IV
22	¶ 49. Dr. Murphy's "ACS" regression uses the results of a monthly survey that asks respondents
23	to report, as a lump figure, their income (and other household members') over the prior twelve
24	months. Self-reported survey data is subject to measurement error, unlike Defendants' payroll
25	
26	⁶ See, e.g., Schaffner, "Specious Learning About Reward and Punishment", J. of Personality & Social Psych. (1985) ("Statistical regression occurs whenever a measurement process includes
27	random measurement error or accurately measures some partly random process. The magnitude of regression depends on the extremity of the original score and the degree of randomness")
28	(emphasis added)

1	records. Leamer IV ¶¶ 53-54. More fundamentally, the ACS methodology leads to obvious			
2	problems when a survey response in March 2006 includes both 2006 and 2005 income, to which			
3	Dr. Murphy applies other annual variables for the calendar year 2006. Leamer IV ¶¶ 55-56, Fig.			
4	2. Dr. Murphy did nothing to address either of these problems, and several others, which renders			
5	this work meaningless. Leamer IV ¶ 60. Furthermore, although Dr. Murphy claims his ACS			
6	results are the same as Dr. Leamer's sharing regressions, in fact they show a much different			
7	pattern and magnitude. Leamer IV ¶¶ 57-59, Figs. 3 and 4. ⁷			
8	II. Defendants Concede Dr. Hallock's Empirical Study and Dr. Shaw Ignores the Evidence and the Data That Disprove Her Unsupported Assumptions			
10	Defendants do not challenge Dr. Hallock's methodology, the admissibility of his opinions			
11	or his evaluation of the composition of the Technical Class. ⁸ Defendants now concede both			
12	formal compensation structure and internal equity.			
13				
14	Murphy Dep. 443:11-15. Dr. Murphy also admitted			
15				
16				
17				
18	7 D. C. J.			
19	⁷ Defendants misrepresent Dr. Leamer's testimony many, many times. Given page limitations, two examples will have to suffice. First, according to Defendants, Dr. Leamer "admits" impact			
20	can only be demonstrated on an individual, case-by-case basis. Opp. 3:5-8 (citing Leamer Dep. 624:25-625:15). Of course, Dr. Leamer said no such thing, and explained in the same testimony			
21	Defendants cite: "nothing I've done is dependent on individual linkages that you are making reference to or all this particular sequences that you're forcing me to comment on." Leamer			
22	Dep. 624:25-625:15. Second, Defendants assert that Dr. Leamer "concedes" he is merely telling a			
	"story," and not doing science. Opp.14:14-15:5. As Defendants well know, Dr. Leamer—one of			
23	the world's leading authorities on statistical inferences from non-experimental data—is simply making the same point Dr. Shaw makes in her academic writings: a "good story" based on			
2324	the world's leading authorities on statistical inferences from non-experimental data—is simply making the same point Dr. Shaw makes in her academic writings: a "good story" based on "descriptive evidence" "can go a long way in reassuring the reader that the estimated model is a good way of interpreting the reality of the firm." Shaver Decl., Ex. 2847 at 614. See also Shaw			
	the world's leading authorities on statistical inferences from non-experimental data—is simply making the same point Dr. Shaw makes in her academic writings: a "good story" based on "descriptive evidence" "can go a long way in reassuring the reader that the estimated model is a			
24	the world's leading authorities on statistical inferences from non-experimental data—is simply making the same point Dr. Shaw makes in her academic writings: a "good story" based on "descriptive evidence" "can go a long way in reassuring the reader that the estimated model is a good way of interpreting the reality of the firm." Shaver Decl., Ex. 2847 at 614. See also Shaw Dep. 43:13-44:12			
2425	the world's leading authorities on statistical inferences from non-experimental data—is simply making the same point Dr. Shaw makes in her academic writings: a "good story" based on "descriptive evidence" "can go a long way in reassuring the reader that the estimated model is a good way of interpreting the reality of the firm." Shaver Decl., Ex. 2847 at 614. See also Shaw Dep. 43:13-44:12 As for Dr. Murphy, who intentionally ignored all available "descriptive evidence":			



Defendants claim that *Comcast Corp. v. Behrend*, 133 S.Ct. 1426 (2013), requires a "method for calculating damages for individual class members." Opp. 23. Defendants conspicuously fail to cite any language from the opinion that says this. *Comcast* turned on concessions by the plaintiffs, 133 S.Ct. at 1430, and on their articulation of four distinct theories of harm, only one of which could be proved on a class-wide basis using common evidence, *id.* at 1430-1431. *Comcast* did not overturn decades of cases holding that a class may prove aggregate

25

26

27

28

21

22

23

24

¹⁰ See Shaver Decl., Ex. 2847 at 614 ("Add descriptive evidence from insiders"), 615 ("Gather data and test the hypothesis"). In fact, Dr. Shaw's studies of the impact of company-wide human resource practices mirror the methodologies Drs. Hallock and Leamer employ. Shaw Dep. 33:7-34:21; 36:18-44:12; 120:22-129:16; Ex. 2847; Shaver Decl., Ex. 2854 (regressions with 9 years of data regarding 83,497 technical workers in 10 states controlling for similar common factors).

damages in an antitrust case. See, e.g., In re Cardizem CD Antitrust Litig., 200 F.R.D. 297, 324			
(E.D. Mich. 2001) ("As observed by a leading commentator on class actions: 'aggregate			
computation of class monetary relief is lawful and proper.") (citing 2 NEWBERG ON CLASS			
ACTION, § 10.05 (3rd Ed. 1992)). 11 If it had, it would have said so. 133 S.Ct. at 1433 ("This case			
thus turns on the straightforward application of class-certification principles"); see In re Urethane			
Antitrust Litig., No. 04-1616, 2013 U.S. Dist. LEXIS 69784 (D. Kan. May 15, 2013) (denying			
motion to decertify class post-Comcast) (the Supreme Court "has also noted that a wrongdoer			
should not be able to insist upon a stricter standard of proof of the injury that it has itself			
inflicted.") (citing J. Truett Payne Co. v. Chrysler Motors Corp., 451 U.S. 557, 566-67 (1981)).			
Defendants also continue to quibble with the substance of Dr. Leamer's damages analysis.			
They provide no support or explanation for their contention that compensation needs to be			
correlated <i>among firms</i> in order to use a single conduct variable for the conspiracy. Opp. 24. Dr.			
Leamer explains that Dr. Murphy's alternative regression is inferior because it fails to take into			

account employee age differences, allows less employer differentiation, and ignores business cycle effects. Leamer IV ¶¶ 64-65. It is simply a restricted version of Dr. Leamer's own model. *Id.* With respect to the Court's invitation to Dr. Leamer to consider whether any additional variables would be appropriate, he has considered the question and has not identified any. His

insensitive to alternative control variables), and is buttressed by Dr. Leamer's subsequent

20 analysis. He stands by it. Leamer IV \P 66. 12

CONCLUSION

model is supported by the economic literature (including Dr. Shaw's), is statistically robust (i.e.,

For the foregoing reasons the motion should be granted.

¹¹ E.g., In re Flat Glass Antitrust Litig., 191 F.R.D. 472, 486 (W.D. Pa. 1999) ("There is no dispute that when used properly multiple regression analysis is one of the mainstream tools in economic study and it is an accepted method of determining damages in antitrust litigation."); City of Tuscaloosa v. Harcros Chems., 158 F.3d 548, 566 (11th Cir. 1998) (upholding expert testimony on antitrust damages based on a "multiple regression analysis, a methodology that is well-established as reliable"); Johnson Elec. N. Am. Inc. v. Mabuchi Motor Am. Corp., 103 F. Supp. 2d 268, 283 (S.D.N.Y. 2000) ("Numerous courts have held that regression analysis is a reliable method for determining damages ...") (citation omitted).

¹² Defendants concede adequacy. Class proceedings will be superior because common issues, including the question of impact, predominate over individual ones. Order 46.

Case 5:11-cv-02509-LHK Document 454-3 Filed 07/12/13 Page 21 of 21

1	D . 1 . 1 . 10 . 2012	A VEED CARRAGER WER AANNAA RERNAMENA AAR
2	Dated: July 12, 2013	LIEFF CABRASER HEIMANN & BERNSTEIN, LLP
3		By: /s/ Kelly M. Dermody
4		Richard M. Heimann (State Bar No. 63607) Kelly M. Dermody (State Bar No. 171716)
5		Eric B. Fastiff (State Bar No. 182260) Brendan P. Glackin (State Bar No. 199643)
6		Dean M. Harvey (State Bar No. 250298) Anne B. Shaver (State Bar No. 255928)
7		Lisa J. Cisneros (State Bar No. 251473) LIEFF CABRASER HEIMANN & BERNSTEIN, LLP
8		275 Battery Street, 29th Floor San Francisco, California 94111-3339
9		Telephone: (415) 956-1000 Facsimile: (415) 956-1008
10		JOSEPH SAVERI LAW FIRM
11		
12		By: <u>/s/ Joseph R. Saveri</u> Joseph R. Saveri (State Bar No. 130064)
13		Lisa J. Leebove (State Bar No. 186705) James G. Dallal (State Bar No. 277826)
14		JOSEPH SAVERI LAW FIRM 505 Montgomery Street, Suite 625
15		San Francisco, California 94111 Telephone: (415) 500-6800
16		Facsimile: (415) 395-9940
17		Co-Lead Class Counsel
18		Eric L. Cramer BERGER & MONTAGUE, P.C.
19		1622 Locust Street Philadelphia, PA 19103 Telephone: (800) 424 6600
20		Telephone: (800) 424-6690 Facsimile: (215) 875-4604
21		Linda P. Nussbaum
22		Peter A. Barile III GRANT & EISENHOFER P.A.
23		485 Lexington Avenue, 29th Floor New York, NY 10017
24 25		Telephone: (646) 722-8500 Facsimile: (646) 722-8501
25 26		Class Counsel
26 27		
28		
20		